

0100: THE QUALITY OF REPORTING IN RANDOMISED CONTROLLED TRIALS IN PLASTIC SURGERY

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Aims: Randomised controlled trials (RCTs) represent the gold standard in evaluating healthcare interventions. However, RCTs can yield biased results if they lack methodological rigour. The Consolidated Standards of Reporting Trials (CONSORT) statement for non-pharmacological interventions aids reporting and consists of a 23-item checklist and flow diagram. Our aim was to assess the compliance of RCTs in Plastic Surgery with CONSORT. **Methods:** Medline was searched from 1 January 2009 to 30 June 2011 for the MESH heading "Surgery, Plastic" with limitations for English language, human studies and RCTs. Results were manually searched for relevant RCTs involving surgical techniques. The papers were scored against the CONSORT checklist. Secondary scoring was then performed and discrepancies resolved by consensus.

Results: 57 papers involving 3,878 patients met the inclusion criteria from a manual search of 254 papers retrieved. The mean CONSORT score was 11.5 out of 23 (50%, range 5.3–21.0). Compliance was poorest with items for intervention/comparator details (7%), randomisation implementation (11%) and blinding (26%). There was no correlation between journal 2010 impact factor and CONSORT score ($R=0.25$). Only 61% declared conflicts of interest and 75% had ethical permission.

Conclusions: The reporting quality of Plastic Surgery RCTs is poor and significant work is now needed to address this issue.

0158: CHANGES OF OXYGENATION, BLOOD FLOW AND HAEMOGLOBIN SATURATION AGAINST GRAVITY

Geraldine Darmanin, Matthew Jaggard, Jagdeep Nanchahal, Abhilash Jain. Charing Cross Hospital, London, UK

Introduction: It is common practice to elevate the head and limbs post-operatively to reduce oedema. However, elevation may be counterproductive as it reduces the mean perfusion pressure. There are no clear data on the optimal perioperative position of the limbs.

Methodology: The optimal position of limbs was investigated in 25 healthy subjects using a non-invasive micro-lightguide spectrophotometry system 'O2C', which indirectly measures perfusion through relative haemoglobin concentration, blood flow and oxygen saturation.

Results: We found a reduction in blood flow of 37% ($p=0.0001$) on arm elevation as compared to heart level and an increase in blood flow of at least 35% ($p=0.01$) on forearm elevation of ≥ 45 degrees. Lower limb blood flow decreased by 30% ($p=0.007$) with elevation and by 70% on dependency ($p=0.0001$).

Conclusions: In healthy volunteers, the position for optimal perfusion of the upper limb is with the arm placed at heart level and forearm at ≥ 45 degrees. For lower limbs the optimal position is at heart level. We are currently collecting data in patients undergoing surgery.

0188: RADIATION INDUCED SARCOMAS – THE NOTTINGHAM EXPERIENCE

Isabel Teo, Tom McCulloch, Anna Raurell, Graeme Perks, Robert Ashford. Nottingham City Hospital, Nottingham, UK

Aims: To evaluate the incidence, patient demographics, primary tumour characteristics and treatment modalities of patients with radiation induced sarcoma (RIS) presenting to the East Midlands Sarcoma Service at Nottingham City Hospital.

Methods: All consecutive patients with histologically proven RIS were entered into our database. Case notes were retrospectively analysed to identify patient demographics, oncological features and treatment outcome.

Results: From 1998 to 2011, 24 patients were identified to have RIS. 17 were female, 7 male. The mean age at time of diagnosis is 67 years (range 40–85). The average latency period is 12.8 years (range 1–50). The 2 most common primary oncological diagnosis were breast carcinoma 11 (11, 45.8%) and endometrial carcinoma (3, 12.5%). The sarcoma subtypes were 9 angiosarcomas (37.5%), 7 pleomorphic sarcomas

(29.1%), 3 leiomyosarcomas (12.5%), 2 myofibroblastic sarcomas (8.4%), 1 MPNST (4.2%) and 1 myxoid liposarcoma (4.2%). At the time of this study, 7 patients were deceased, 3 undergoing active treatment, 12 under surveillance, 1 palliative and 1 discharged from follow-up.

Conclusions: RIS are rare and we present our 13 year experience in the management of these tumours. We plan to continue to monitor the outcome in these patients.

0189 WINNER OF ASIT-PLASTA PRIZE: CHEMISTRY EXPERIMENTS WITH ELEMENTAL METALS – FUEL FOR THE MINDS, FORMULA FOR DISASTER?

Isabel Teo, Krisna Rao, Wee Lam, Robert Caulfield. Sheffield Teaching Hospitals NHS Trust, Sheffield, UK

Introduction: Irrigation of water is contraindicated in burns involving elemental metals as this causes an exothermic reaction. This project was taken on following a 15-year-old who came into contact with potassium at school. His injury was incorrectly managed by the teacher resulting in deepening of the burn.

Aims: To identify the current practice regarding the use of elemental metals in science lessons, safety precautions and knowledge within the teaching profession.

Methods: We identified a random cohort of ten schools within the catchment area of our regional burns unit, contacted the science head teacher and asked a series of questions pertaining to elemental metals.

Results: All 10 schools kept these elemental metals in their labs. Only 10% were aware of the correct first aid treatment. 80% would treat a burn with elemental metals with water. None had specific first aid safety precautions or protocols in the event of such injuries.

Conclusion: There is an urgent need to spread awareness of the correct management of elemental metal burns. Our unit has begun creating advice sheets and protocols for schools and commenced the process of improving the understanding of science teachers and students.

0248: BREAST RECONSTRUCTION WITH DEEP INFERIOR EPIGASTRIC PERFORATOR FLAPS: EVOLUTION OF TECHNIQUE AND PROCEDURAL REFINEMENTS FROM AN ONGOING AUDIT OF OUTCOMES

Zoe Barber, Jonathan Cubitt, Aadil Khan, Michael Tyler. Stoke Mandeville Hospital, Aylesbury, UK

Introduction: Approximately 45,000 women are diagnosed with breast cancer in the UK each year. More and more women are seeking reconstruction following mastectomy.

This study aimed to evaluate DIEP flap reconstructions performed in our unit and, through analysis of complications, detail the evolution of our current care pathway.

Materials and Methods: Retrospective analysis was performed of all DIEP flap reconstructions performed by the senior author between July 2003 and Dec 2010.

Results: One hundred and fifty-nine flaps were performed on 141 patients (including 36 bilateral flaps). Average age was 49 years (28 – 70 years). 10% of flaps were risk-reducing for BRCA1/2. Twenty-six percent of patients suffered complications post operatively: systemic complications (PE 2%); and flap-specific complications (partial flap necrosis 9%, reanastomosis 3% and fat necrosis 9%). Seventy-four percent underwent further elective operations including nipple reconstruction (72%), contralateral breast reduction (36%) and scar revision (21%). There were no total flap losses.

Discussion: DIEP flaps are a safe, reliable option for breast reconstruction. There is a significant learning curve, with complications, operative time and ischaemic time reducing through the series and post-operative haemoglobin increasing. We outlined evolution of our current care pathway including pre-operative imaging, peri-operative DVT prophylaxis and analgesia.

0281: ANTIBIOTIC PROPHYLAXIS IN ELECTIVE PLASTIC SURGERY

Gemma Pilgrim, Seemab Ashraff, Jian Farhadi. Guys and St Thomas' NHS Foundation Trust, London, UK

Aim: To investigate our use of prophylactic antibiotics in elective minor plastic surgery and if they affected wound infection rates.

Method: A postal questionnaire was sent to every patient who underwent a minor plastic surgical procedure at Guy's Hospital between April and August 2010. Data was collected on patient-reported wound appearance